

Claim Listing:

1. (Previously Presented) A method for transmitting a data field of symbols comprising the steps of:
 - generating a first data field of symbols;
 - encoding said first data field producing a second data field having complex conjugates of the symbols of said first data field;
 - spreading said first and second data fields, wherein said first data field is spread using a first channelization code and said second data field is spread using a second channelization code, each channelization code being uniquely associated with one of a first and second antennas; and
 - transmitting an RF signal including said first and second spread data fields over a first and second antenna.
2. (Original) The method of claim 1 further comprising the step of scrambling said first and second spread data fields by a scrambling code associated with said base station.
3. (Original) The method of claim 2 wherein the symbols of said first data field of symbols are grouped into a first and second sub-data field.

4. (Original) The method of claim 3, wherein the symbols of said second data field of symbols are grouped into a third and fourth sub-data field, wherein said third sub-data field is the negative complex conjugate of said second sub-data field and said fourth sub-data field is the complex conjugate of said first sub-data field.

5. (Previously Presented) A transmitter for transmitting a data field of symbols comprising:

a first and second antenna for transmitting said data field of symbols, wherein said data field includes a first data field;

an encoder for encoding said data field producing a second data field having complex conjugates of the symbols of said data field; and

a first and second spreading device for spreading said first and second data fields, wherein said first spreading device spreads said first data field using a first channelization code and said second spreading device spreads said second data field using a second channelization code, each channelization code being uniquely associated with one of said first and second antennas.

6. (Original) The transmitter of claim 5 wherein said transmitter further comprising a first and second scrambling device for scrambling said first and second spread data fields by a single scrambling code associated with said transmitter.

7. (Original) The transmitter of claim 6 wherein the symbols of said first data field of symbols are grouped into a first and second sub-data field.

8. (Original) The transmitter of claim 7, wherein the symbols of said second data field of symbols are grouped into a third and fourth sub-data field, said third sub-data field being the negative complex conjugate of said second sub-data field and said fourth sub-data field being the complex conjugate of said first sub-data field.

9. (Previously Presented) A transmitter including:
a first and second means for transmitting a data field of symbols including a first data field;
a means for encoding said data field producing a second data field having complex conjugates of the symbols of said first data field; and
a first and second spreading means for spreading said first and second data fields, wherein said first spreading means spreads said first data field using a first

channelization code and said second spreading means spreads said second data field using a second channelization code, each channelization code being uniquely associated with one of said first and second transmitting means.

10. (Original) The transmitter of claim 9 further comprising a means for scrambling said first and second spread data fields by a scrambling code associated with said transmitting means.

11. (Original) The transmitter of claim 10 wherein the symbols of said first data field of symbols are grouped into a first and second sub-data field.

12. (Original) The transmitter of claim 11, wherein the symbols of said second data field of symbols are grouped into a third and fourth sub-data field, wherein said third sub-data field is the negative complex conjugate of said second sub-data field and said fourth sub-data field is the complex conjugate of said first sub-data field.

13. (Previously Presented) A method for transmitting a data field of symbols comprising the steps of:

generating a data field of symbols, wherein said data field includes a first data field;

spreading said first data field using a first channelization code producing a first spread data field;

spreading said first data field using a second channelization code producing a second spread data field, each channelization code being uniquely associated with one of a first and second antennas; and

transmitting an RF signal including said first and second spread data fields over a first and second antenna.

14. (Original) The method of claim 13 further comprising the steps of scrambling said first and second spread data fields by a scrambling code associated with said transmitter.

15. (Original) A transmitter for transmitting a data field of symbols comprising:

a first and second antenna for transmitting said data field of symbols; and
a first and second spreading device for spreading said data field, wherein said first spreading device spreads said data field using a first channelization code, producing a first spread data field, and said second spreading device spreads said

data field using a second channelization code, producing a second spread data field, each channelization code being uniquely associated with one of said first and second antennas.

16. (Original) The transmitter of claim 15 further comprising a first and second scrambling device for scrambling said first and second spread data fields by a single scrambling code associated with said transmitter.

17. (Original) A transmitter comprising:
a first and second means for transmitting a data field of symbols; and
a first and second spreading means for spreading said data field, wherein
said first spreading means spreads said data field using a first channelization code
producing a first spread data field and said second spreading means spreads said
second data field using a second channelization code producing a second spread
data field, each channelization code being uniquely associated with one of said first
and second transmitting means.

18. (Original) The transmitter of claim 17 further comprising a means for
scrambling said first and second spread data fields by a scrambling code associated
with said transmitting means.